THE

BOSTON MEDICAL AND SURGICAL JOURNAL.

VOL. LXI. THURSDAY, DECEMBER 22, 1859. NO. 21.

## MEMBRANOUS CROUP—TRACHEOTOMY—DEATH.

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[Communicated for the Boston Medical and Surgical Journal.]

WALTER CREIGHTON, æt. 3 years and 1 month, had not been well for some time previous to this attack of croup. On Sunday, Nov. 6th, he had a fit, and on the same day it was noticed that there was a swelling, not tender to the touch, under both ears. The next day (Monday), he coughed a little and was supposed to have taken a slight cold. At night, about 9½ o'clock, after being asleep for ten minutes or more, he suddenly jumped up in the bed, drew in his breath with great difficulty, and said there was something in his throat and that he could not breathe. He struggled and tossed about for some time, in great distress, and asked for an emetic. An emetic was given, and he vomited three or four times, but without relief. At 4, A.M., Tuesday, he took some antimony. During the day he did not feel like having his clothes on. Swallowing was painful, the cough was frequent and at times loose, the voice weak, hoarse and inclined to a whisper, the breathing labored and at times noisy. He had been almost constantly in his mother's arms since Sunday. On Wednesday, the 9th, he was worse. At 3, P.M., I saw him with Dr. Read, the attending physician. At that time there was membrane on the tip of the uvula and on both tonsils. There was none elsewhere, as far as could be seen. The edges of both nostrils were excoriated, and the skin, from there to the mucous membrane of the lip, was inflamed as in scarlatina. He evidently had membranous croup. The voice was a whisper, the cough hoarse and generally loose, the breathing croup-like, not much labored nor quick, nor indicating much obstruction to the passage of air. His general appearance was pretty good. Percussion of chest was resonant. The urine was tested by nitric acid and heat, but no albumen was found. Directions were given for steam in the room, nit. argent. to throat, Dover's powder gr. ij. every two or three hours, p. r. n. During the night, there were three or four suffocative paroxysms of cough-

ing, with great difficulty of getting breath. Thursday morning the symptoms were increasing in severity. Just after noon, the suffocative paroxysms came on every half hour, whenever he roused or moved about. There was also a frequent inclination to vomit, with the feeling as if there was something in the throat to come up. In these paroxysms, the head was thrown back, the arms strongly flexed and spasmodically stiff, the face livid, the countenance wild, and constant struggling to get breath. At 5½, P.M., the voice and cough were nearly extinct, and the breathing was more and more obstructed and labored. The pulse was 140, small.

Tracheotomy was immediately urged, and performed at 6, P.M., with the assistance of Drs. Read and Buckingham. The trachea was kept open by the dilator till the usual coughing had somewhat subsided, to allow a more free and easy passage of whatever was then ready to be expelled, before inserting and securing the tube. A piece of membrane, over two inches long and a quarter of an inch wide, was forced out, and several smaller pieces, together with some bloody, viscid mucus. The respiration was soon comparatively quiet, and without any labor. In addition to the previous directions, which were to be continued, it was ordered, in writing, to inject through the tube into the trachea about twenty drops of the sol. nit. argent., and repeat it every four hours; to remove and clean the inner tube at least every hour, or oftener whenever it appeared obstructed. If the respiration became dry, squeaky and labored, about ten drops of tepid water were to be syringed into the trachea. Two or three folds of lace to be kept over the opening of the tube.

10, P.M. Patient appears to be doing well. Has rested pretty quietly and slept a few moments. Many pieces of membrane have been raised through the tube. Pulse 132. The cough is not very frequent. The respiration is easy, and the lungs sound pretty well. The sol. nit. argent. ordered to be used at 12 and at 6, A.M. A Dover's powder at 1 and at 6, A.M.

11th (Friday). Had a pretty good night. The tube was frequently removed, cleaned and replaced without any disturbance to patient. Many pieces of membrane and much viscid mucus were raised through the tube. Took some beef tea and some wine and water.

Has not been so well since early this morning. At 9, A.M., the countenance has an asphyxiated look. The respiration is dry, hoarse and hurried. The pulse was 152. Both tubes were taken out. A flapping sound was immediately heard, and a piece of membrane was seen moving about in the trachea during the coughing. This was seized by the forceps, and not coming away, it was drawn out and removed by the scissors. Immediately there was a free hæmorrhage, of an ounce or more, into the trachea. The patient instantly became deadly pale, and there was a profuse perspiration

over the face and body. The struggle for breath was very distressing. By turning the body on its side and raising it a little, the blood and mucus were soon expelled from the trachea. Some hot brandy and water was then given, and in a few moments he rallied and looked brighter and better than at any time during the morning. Directions were then given to persist in giving beef tea and other nourishment. The respiration was easier, and at times the alæ nasi were dilated, but no air could be felt through them. In the middle of the forenoon he took a Dover's powder, and slept quietly for a little while. At 1 o'clock he had raised many pieces of membrane from the tube, with some blood (not fresh).

9½, P.M. Respiration has been pretty quiet and easy most of the P.M. At times it has been dry and squeaky, and labored. The tube has been removed every hour and oftener. The sol. nit. argent. has been used once or twice, the tepid water several times, with much relief and always followed by expulsion of membrane and mucus. The membrane is softer, as if decomposing, and has a yellowish tinge to the usually white look. Pulse 138. Has taken sufficient nourishment. The bleeding of this morning does not seem to have affected him injuriously.

12th (Saturday). Had a pretty comfortable night, and slept some. The cough, respiration and expectoration were about the same. To-day, 9, A.M., countenance is more natural. Pulse 132. Respiration easy, and at times very quiet. Many bubbling râles, mostly in trachea. The membrane expelled to-day is in lumps, as if rolled up, and is beginning to look yellow. Some of the mucus raised is very viscid, requiring a long coughing before it is expelled. A fine scarlatinoid eruption is seen on chest and abdomen, none on the extremities. Skin moist and soft. Tongue cleaner, and moist. Takes nourishment well. Is quieted by the Dover's powder.

9½, P.M. Seems to be gaining strength. Has had some good sleep this P.M. No albumen in urine. After one of the paroxysms of coughing, vomited a large quantity of liquid with some membrane in it, by the report of the mother. Has used his playthings a little while. There have not been to-day so many of those dry, labored paroxysms of coughing. The inner tube has been removed very frequently to wash away the viscid, gummy deposit.

13th (Sunday). Was comfortable during most of the night. Had some naps one hour long. The tube was cleaned often. Great relief always followed the injection of tepid water, which has been done about ten times in the twenty-four hours, and only when the breathing was dry, squeaky, labored, and attended with some symptoms of asphyxia. A large lump of membrane is invariably ejected after it.

He retched and vomited once in the night, probably from the separation of membrane about the glottis. The mother says that membrane has been raised from the mouth.

9, A.M. Still comfortable. Respiration easy, not quick, nor noisy. Cough loose. Expectoration more purulent-looking. Masses are raised up, almost decomposed, yellowish and with longitudinal stripes and furrows. Tongue cleaning. Pulse 132. Scarlatinoid eruption fainter. Asks for nourishment. Uses his playthings. Can articulate words so as to be heard.

9½, P.M. Has had a better day than yesterday. The cough is less. Tube removed about every two hours, generally pretty clean. Occasionally the tepid water is used. Respiration easy. The mother reports that the breath and what is raised to-day, smells bad. There are now no distinct pieces of membrane, but masses in lumps looking like thick, whitish yellow porridge. Took some inf. gentian c. and iodid. potass.

14th (Monday). At times, last night, patient was in much distress. The tepid water injection was used every two hours, and always with relief; the tube was changed every hour. To-day, 9, A.M., patient is generally more quiet. The expectoration is more purulent, and not so offensive, though still copious and in lumps. The respiration is good. Pulse as before. Tongue cleaning. Has had frequent retchings. Some milk and water that he drank this morning came out of the tube for the first time. Has taken some wine and water, although he dislikes all drinks, probably because they excite coughing. The eruption is about gone.

15th (Tuesday). Did not seem much disposed to use his playthings yesterday P.M. Had a better night; slept one hour at a time. To-day, 9, A.M., as comfortable, though still quiet. Some bloody expectoration, probably from the separation of membrane. The most of what is forced through tube is thick and purulent, with an occasional offensive odor. Does not take nourishment well, though attempts are made to try his taste on different things, such as weak shells, wine whey, gruel, toast and barley water.

Has been pretty quiet through the day and evening. Pulse ranged from 120 to 132. There was a slight blush on cheek in the evening.

16th (Wednesday). Had a quiet night. The tube was changed three times between 1 and 5 this A.M. To-day the respiration is easy and silent. The cough is less. The expectoration is less, still purulent and slightly offensive; occasionally it is bloody. Through the day has remained quiet without wanting his playthings. Has had several naps, one hour long. Is sleeping quietly now, 9½, P.M. Pulse 130. Asked for milk and water.

17th (Thursday). Mother reports that yesterday P.M. some of the expectoration was dark red and purulent. Had a comfortable night, sleeping two hours at a time. Is gaining strength. The face has a good color. Respiration is inaudible. Tongue is of good color. The cough is much less. Mother says she saw something white coughed up into the mouth, and immediately swallowed. The expectoration is thin and yellow, and without odor.

The tube is still changed every one or two hours. The tepid water is seldom used now.

18th (Friday). Had a good night. The tube was changed five times since 9, P.M. Countenance bright. Pulse 132. Respiration easy and noiseless. Both tubes permanently removed. The wound has a perfectly healthy look. Is rather disinclined to nourishment.

1, P.M. Within the last hour has sunk suddenly away, without any visible cause. He is now, to appearance, nearly moribund. The pulse is with difficulty felt at the wrist. The respiration is perfectly noiseless and without the least effort. At short intervals there is some general restlessness. Wine and water, and beef tea, by the mouth and per anum, were prescribed and given.

19th (Saturday). The sinking state increased very slowly, and he died easily at 3, A.M., nine days and nine hours since the operation. No post-mortem examination was allowed.

Though this case was unfavorable and unexpected in its result, there are many interesting points attached to it, showing that, even after tracheotomy has been performed, it is not all plain and smooth sailing, unattended with danger to the patient and anxiety to the parents and surgeon.

A few remarks may be here made, bearing upon some of the prominent and practical features which come up from day to day.

*Steam.*—Its effect may be well judged of from the remark of attendants, that if there is less than there should be, the patient soon chokes up and complains of more or less dryness in the throat, followed, if unrelieved, by a distressed look and an asphyxiated condition, all of which generally disappears the moment there is a sufficient supply.

*Dover's Powder.*—This unquestionably produced a powerful and beneficial influence both before and subsequent to the operation, in quieting the nervous irritability and the tendency to coughing, and in producing sleep, all of which would go to prevent that exhaustion of the strength and constitutional disturbance, which a waking state under the circumstances would greatly increase. Syr. papaveris., paregoric or laudanum, may produce the same results.

*Tube (inner).*—It should be removed *at any time*, when there is *an obstruction*. In the majority of cases, it is also advisable to remove and clean it about every hour, during the first twenty-four hours, and sometimes as often afterward, as the individual case may demand. Viscid mucus, a gummy deposit or pieces of membrane, may in a short time bring on a troublesome obstruction.

*Both* tubes should be removed whenever the obstruction does not cease on removing the inner one, and, if it still continues, a few drops of tepid water injected into the trachea will almost always displace it. The same should be done the day after the

operation, in order to allow a more free escape of detached membrane and mucus, above and below the wound.

Retching and choking have been noticed in nearly all the patients, two, three or four days, or later, after the operation, and have been supposed to be connected with detached membrane in the upper part of the larynx, and about the epiglottis. When this occurs, remove both tubes, and membrane will probably be expelled both from the mouth and wound. In this patient, the inner tube has been removed twenty-four times, in twenty-four hours, without any disturbance or discomfort to him, and occasionally even when asleep.

In a patient operated upon a year ago, on a Sunday, there was this troublesome retching on Tuesday; and on removing both tubes a piece of membrane two or three inches long, mostly solid, and with a tongue-shape epiglottis, was expelled from the wound.

*Sol. Nit. Argent.*—The injection of this always gave relief, and expelled more or less membrane.

*Tepid Water.*—A few drops of this was injected into the trachea, when there was a dry, squeaky cough, labored respiration and an asphyxiated look, particularly if coming on suddenly. In every instance it was followed by the expulsion of lumps of membrane, which had probably obstructed a bronchial tube. The relief was also immediate. There was a necessity one day to do it ten times in twenty-four hours, and always with the same result. This is too often to use the sol. nit. argent., unless it is very weak.

*Membrane in lumps.*—This has been noticed in some of my previous cases. It was not so soft at first, but that the flat, ribbed membrane could be seen. There was soon a greater degree of softening, like thick porridge or curd, as if rolled in lumps during the process of expulsion, of a decomposed and offensive odor, and of a dingy white yellow, instead of the natural white color. The air from the trachea had the same offensive odor. From the various stages in which these lumps have been seen, it is undoubtedly decomposed membrane. I have not examined as yet to see if there is any reported case where this offensive odor of the expectoration and breath has been noticed after tracheotomy, and *during life.* Mention has been made of it in *post-mortem examinations,* where with this thick, porridge mass, and offensive odor, has been seen small fragments of membrane in the smaller bronchial tubes.

*Eruption.*—In this patient it looked very much like the eruption of scarlatina. In Paris, other forms have been seen, such as urticaria and measles.

*Albumen.*—None was found in the urine at any time.

*Hæmorrhage.*—This was certainly very singular, and very difficult to explain. There was unquestionably something producing a bad effect upon the system previous to the removal of the tubes.

When they were removed, a substance looking like thin flat membrane was seen, moving about in the trachea. On seizing it with the forceps, gentle traction was not sufficient to bring it away, and it was cut off by the scissors and followed by that sudden gush of blood. The sudden stoppage of the bleeding and its non-recurrence are also singular circumstances, together with the subsequent great relief, whether owing to the bleeding or removal of the membrane.

*Sudden Sinking.*—This remains unexplained, particularly as he was so comfortable in the morning, and afterward showed no symptom of any pulmonary difficulty.

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## ON HERMAPHRODITISM.

[Communicated for the Boston Medical and Surgical Journal.]

A HERMAPHRODITE is an animal or plant uniting in itself the sexual characters of the male and female. The name is derived from the fable of the union into one of the bodies of Hermaphroditus and Salmacis. There are two kinds of hermaphroditism, the spurious and the true: in the former there is only an appearance, from arrest or excess of development, of a union of opposite sexual characters; in the latter, there is an actual coexistence in the same individual of more or less of both male and female organs; the former may occur in either sex, and in the latter the male or female may preponderate. Spurious hermaphroditism in the female may depend on the preternatural size of the clitoris, from a continuation of its growth in intra-uterine proportions, and on prolapsus of the uterus, both of which have assumed the appearance of the male organ; the former is most common in warm climates (especially in Africa), and was well known to the ancient Greeks; the celebrated poetess, ***Mascula Sappho***, is said to have been included in this class. This condition is often complicated with other anomalies of structure and character, which approximate the female still more to the male in appearance; this kind of malformation has been often noticed in monkeys and in the lower mammals. Cases of supposed hermaphroditism from prolapsed womb are on record, though none such have been observed in the lower animals. Spurious hermaphroditism in the male may arise from extroversion of the bladder, adhesion of the penis to the scrotum, or most commonly, from fissure in the perinæum, urethra, penis, or glans (*hypospadias*), from arrest of development of the male sexual organs. Cases of hypospadiac males passing for females have been not uncommon; some of the lower mammals, horses especially, are subject to a similar malformation. True hermaphroditism is the normal type of sexual structure in almost all phanerogamic plants, the reproductive organs being either upon the same flower or upon different flowers on the same individual; and this

condition is sometimes found as a monstrosity in dioecious plants. Perfect hermaphroditism exists also normally in many invertebrate animals, as, according to Siebold, in the *ctenophora* among *acalephæ;* the *cestodes* (tapeworms) and *trematodes* among *helminthes; planaria: hirudinei* (leeches), and *lumbricini* (earth worms) among *annelids;* some acephalous and cephaloforous mollusks; cirripeds among crustaceans; and the *tardigrada* among *arachnoids;* it does not exist in insects, unless as a monstrosity—in some of these, as in the *trematodes* and *planariæ*, each individual may be self-impregnating, but generally the sexual act is accomplished by two individuals, respectively impregnating each other. True hermaphroditism, which may occur abnormally in the higher invertebrates and in all vertebrates, is divided by Dr. Simpson ("*Cyclopædia of Anatomy and Physiology*," Vol. 2) into the lateral, transverse, and double or vertical. In the lateral form, if we adopt the opinion that the two halves of the body and its organs are originally developed independently of each other, it may be understood how an ovary might be formed on one side and a testicle on the other, or how female might coexist with male organs; instances of this form are given in the books in insects, crustaceans, fishes, birds, and mammals, with more or less evidence of authenticity. In the human system, with the alleged occurrence of a testis on one side and an ovary on the other, there has generally coexisted a more or less perfectly formed uterus, the external parts presenting a male, female, or indeterminate character; the left side appears to be the one on which the female sexual type is most frequently found: Dr. Simpson gives five cases in which the left side, and only one in which the right side was female. In transverse hermaphroditism, the internal or reproductive sexual organs may be of the male type, and the external or copulative female, or *vice versa;* showing that these two portions of the generative organs are, to a certain extent, independent in their development; in female transverse hermaphroditism, the external organs consist of clitoris, labia, and vagina, with more or less rudimentary uterus; and the internal organs are testicles, with *vasa deferentia* and *vesiculæ seminales;* it is not uncommon in cattle, which are called "free martins," but is rare in the human subject. In Dr. Simpson's paper is an interesting case which occurred at Naples, presenting a perfect example of the anomaly; many spurious cases of hypospadiac males have been referred to this variety. In male transverse hermaphroditism, the external organs consist of penis with prepuce, glans, corpora cavernosa, corpus spongiosum, prostate gland, &c.; and the internal organs are ovaries, Fallopian tubes, and uterus; leaving out of the question the spurious cases connected with enlarged clitoris, these examples are not recorded as occurring among animals and rarely in man. Dr. Simpson details two remarkable cases, one examined by Eschricht of Copenhagen, and the other by Bouillaud of Paris.

In double or vertical hermaphroditism, there is actual coexistence of two or more analogous organs of the two sexes on the same side or in the same vertical line of the body, or at a given point the sexual apparatus is double. In a general female type, bodies resembling ovaries and an imperfect uterus may exist with seminal vesicles, with or without rudimentary deferent ducts; sometimes seen in free martins. With a sexual organization essentially male, may exist an imperfect uterus with Fallopian tubes; this is not uncommon both in animals and man, complicated in the latter often with hypospadias. Cases are on record of the coexistence of testis and ovary on one or both sides; but the evidence in these always lacks some essential point necessary to render the fact beyond dispute, at least in the human subject. A very interesting but not perfectly satisfactory case of hermaphroditism is described and figured by Dr. J. Mason Warren, in the "*American Journal of the Medical Sciences*" (Philadelphia, July, 1859, p. 123). It cannot be called a case of true double hermaphroditism, nor could it come under the division of lateral hermaphroditism; it may be styled, in the language of Dr. Simpson, a true male transverse hermaphroditism, with a spurious hermaphroditism in the external organs from hypospadias. The external characters were strikingly male, though sexual desire was uncertain; of the occurrence of seminal emission or of menstrual discharge, nothing whatever is known. All the internal organs were female, except the prostate. Mammary development is not peculiar to the female, but has been noticed frequently in males whose reproductive organs and functions were perfect. The influence of this hermaphroditic arrest and excess of development upon the mental and moral qualities of the sexes, is very interesting in many practical points of view. When, in quadrupeds, or birds, especially in the gallinaceous genera of the latter, the ovaries have ceased, from age, removal or disease, to perform their functions, the female animal begins to assume the appearance, the habits, and the qualities of the male; female deer, for instance, under such circumstances, may assume the horns, hair, shape, odor, and even desires of the males; hens, barren and useless, with diseased ovaries, are apt to crow like cocks, and acquire the tail feathers and spurs of the males. In like manner, the human female, with permanent suppression of catamenia and barren from non-development, disease, or age, loses the feminine cast of character, and becomes more or less masculine in features, form, voice, and habits of thought and action; these *viragines*, as the Romans styled them, with hair on the face, harsh tones and coarse expressions, graceless forms, and love for the dress and pursuits of man, are seen in modern times attempting to carry out various unpopular reformatory movements. Physiology and pathology strongly hint that the masculine tendencies of female reformers proceed less from superior mental strength than from an abnormal condition of the reproductive system; and experience shows that

it is ordinarily not the faithful mother and the loving wife, but the childless and the lonely, who thus willingly or necessarily unsex themselves; it seems to be a question between the fruitful vine and the barren fig tree. So, disease or removal of the testes reduces man to an effeminate maker of bonnets or worker of slippers, sweet-voiced tenor, or guardian of imprisoned sultanas. These facts are intimately connected with the mental, physical, and moral qualities of hermaphrodites; at puberty the male passes to a higher degree of sexual development, while the female retains more of the qualities common to the young of both sexes. Hence the male is said to be physiologically more perfect as regards the individual type, and the female more perfect as regards the species; hence, too, the malformation of the female sexual parts so as to resemble the male is almost always the effect of excess of development, while male hermaphrodites resembling the female almost always display a deficiency of development. In spurious hermaphroditism there is not a new and entirely anomalous type of structure, but a repetition of what is the natural condition in the human fœtus and in the lower animals; the hypospadiac condition resembles that in the sloths, some rodents, most birds, and the ophidian and saurian reptiles; so that the subject is intimately connected with the study of embryology and comparative anatomy. The testes correspond to the ovaries in their relative sexual functions, in their primitive origin on the side of the Wolffian bodies, and, according to Valentin, in appearance and structure in the early periods of development; in the same manner, the other male sexual organs have their analogues in the female, for details on which we must refer to Dr. Simpson's paper, to the work of Geoffroy St. Hilaire, "*Histoire des Anomalies de l'Organisation*" (Paris, 1836), and to the article "*Vesicula Prostatica*," by Leukhardt, in Vol. 4 of the "*Cyclopædia of Anatomy and Physiology*." It is now generally admitted that there are occasional cases of a combination of the male and female organs in the same individual; though most physiologists doubt the existence of hermaphroditism involving true sexual duplicity or repetition of corresponding male and female parts. In the cases of double hermaphroditism, there has always been some important link wanting in the chain of evidence adduced in favor of the coexistance of testes and ovaries in one person. In cases of spurious hermaphroditism, though the internal organs are well developed, the external parts may or may not allow of the reproductive act; and in the true cases of this malformation, there is no authentic record of the reproductive function having been performed in either sex in the vertebrate animal. Of the causes of hermaphroditism, beyond an arrest or excess of development, almost nothing is known; some forms, especially hypospadiac malformations, are often hereditary. In double monsters, there is rarely if ever hermaphroditism, the genital organs of both bodies being almost always either

both female, or both male. For full details on the whole subject, the reader is referred to the paper by Dr. J. Y. Simpson, in Vol. 2 of the "*Cyclopædia of Anatomy and Physiology*," article *Hermaphroditism;* and the same, with additions, in Vol. 2 of the Philadelphia edition of his "*Obstetrical Memoirs and Contributions;*" a very full bibliography is appended to the essay.

S. K., Jr.

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## PAIN AS A SIGN OF DISEASE OF THE STOMACH.

[At a meeting of the Medical Society of London, held Nov. 14th, the following paper was read by Dr. Habershon:]

The author first spoke of the general absence of pain in disease of the mucous membranes, except where the orifices of their canals were affected; and of the very frequent immunity from actual suffering in many morbid states of parenchymatous viscera. But in serous membranes an opposite condition was found to occur, almost any change, and especially those of a sudden or acute kind, being accompanied by severe and agonizing pain; and of such a character and severity as to demand perfect rest, this rest being a very essential element in the alleviation of the disease. In pericarditis, on the contrary, when occurring without pleurisy, pain was very frequently entirely absent, as for many years shown by Dr. Addison; and rest in this case would be impossible. The immediate object of the communication being the consideration of *pain* in connection with *disease of the stomach*, he proceeded to show its value as an indication, or non-indication, of disease of that organ, by several propositions:—

1. That acute so-called inflammation and disease of the stomach may be entirely free from pain, if the mucous membrane only be affected. Reference was made to the gastro-enteritis of children, and to the symptoms of irritant poisoning. Several instances were adduced, in one of which a large dose of oxalic acid was taken; and except pain in the mouth and throat, there was no suffering, but the patient completely recovered. In a second, a case of poisoning by sulphuric acid, the patient lived eleven days; but except that arising from the action of the acid on the mouth and throat, there was no evidence of suffering, or of pain, tenderness, &c., at the stomach. The whole of the mucous membrane was destroyed, but the deeper structures were uninjured. In a third case, one of poisoning by a solution of chloride of zinc—Burnett's disinfecting fluid—no pain whatever was suffered for three months; but eight days before death pain came on in the left side. Ulceration of the mucous membrane was found near both orifices; near the œsophagus was an opening into an abscess between the spleen and diaphragm; and near the pylorus extravasation was prevented by adherent omentum. It was believed by the author that this

abscess had only dated from the commencement of the pain eight days before death, when probably the deeper structures had become involved.

2. That organic disease of the mucous membrane alone—as, for instance, cancer—may be comparatively free from pain. Reference was made to the detection of cancerous secondary tubercles without previous symptoms; and a specimen was shown of a large villous growth from the mucous membrane of the stomach, of which no idea had been entertained, the orifices being free, vomiting absent, and no pain being present for many weeks before death. The patient died from advanced cirrhosis, and at the commencement of her illness had complained of burning pain at the stomach.

3. That disease extending to the muscular or peritoneal coats, produces generally severe pain, as in ordinary ulceration or cancer. Two instances were given in which the intensity of the pain was the most prominent symptom, and in which, after death, the author had detected branches of the pneumogastric nerve involved in the dense fibrous edges of chronic ulcers.

4. That over-distension of the stomach produces severe pain.

5. So also disease of the peritoneum covering the viscus.

6. The statement of Dr. Osborne, that the precise seat of gastric ulcer might be shown by the position of greatest ease, was briefly alluded to; but the author did not give a positive opinion on the subject. In the case mentioned where the pneumogastric was involved, and the ulcer at the posterior aspect, the patient was most comfortable when leaning forward and toward the left side, so far confirming Dr. Osborne's opinion.

7. That in disease of the lesser curvature near the pylorus, pain is sometimes experienced by the patient as soon as the food enters the stomach, and, in some cases, conveys the idea of disease at the œsophageal orifice. An instance was mentioned where, for many months, the affection was believed, by an eminent physician, to be at the end of the œsophagus, whereas the lesser curvature near the pylorus only was affected, and the mucous membrane near the œsophagus was perfectly free.

8. That many conditions of functional disease are entirely free from pain.

9. That the pain in many so-called functional diseases is often exceedingly severe, but is often produced by a mal-condition of the nerves or nerve centres, and arises from the intimate connection of the spinal and sympathetic nerve. Reference was made to the severe dyspepsia occurring in states of exhaustion, extreme nervous prostration, loss of blood, over-anxiety, and uterine disease.

10. That the effect of diseased condition of the pneumogastric nerve at its centre or peripheral branches, in connection with stomach disease, is one of great interest, and it is probable that pain is sometimes the result. The irritability of the stomach in

cerebral disease, in disease of the supra-renal capsules, the dyspepsia in phthisis, &c., were alluded to, and several drawings of the nerve supply of the stomach shown.

11. That in many forms of functional disease of the stomach, accompanied with severe pain after food, *it was probable* that extreme irritability of the pyloric orifice existed.

12. That in functional, as in organic disease, pain often arises from distension of the stomach consequent on chemical decomposition of the alimentary mass.

13. That absence of pain is sometimes found in consequence of the destruction of the pneumogastric nerves. An instance was given, where the whole of the lower part of the œsophagus was destroyed, the pneumogastric nerve exposed, and many branches truncated; fluids had passed into the posterior mediastinum, had burrowed beneath the diaphragm, and made an abnormal opening into the stomach. The patient had travelled, a few days before death, to Guy's Hospital from the North Foreland, and scarcely any pain was complained of, notwithstanding this extensive mischief.

14. That pain at the scrobiculus cordis, simulating disease of the stomach, often arises from spinal disease, the pain being referred to the extremity of the irritated nerve.

15. The severe pain at the scrobiculus cordis, also simulating disease of the stomach, is referred by some, and probably correctly so, to over-distension of the cavities on the right side of the heart, as we find in mitral valve disease, chronic bronchitis, &c. In these instances, the whole of the chylopoietic viscera and the branches of the vena porta are much congested, and the functions of several viscera imperfectly performed.

16. That cancerous disease of the stomach, with enlarged glands pressing upon the aorta, may be simulated by aneurism. In the latter disease, pain is sometimes very intense; and a case was referred to by the author, in which the patient died from the intense suffering, the false aneurismal sac not having given way; and, in dissecting the parts, the large branches of the sympathetic were found by him stretched out upon the sac. No other cause of death was found, after careful examination.

The author stated that these propositions were submitted to the Society not with the idea that each was established, but as guides for further thought and observation.—*Lancet.*

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Glycerine in Surgery.—M. Demarquay, of Paris, has successfully used glycerine in ulcers and fistulous tracts, along which latter it should be injected to fulfil the following indications—viz., to diminish excessive suppuration, cleanse the secreting surfaces, modify the noxious properties of the pus, prevent the stagnation of fluids, or simply to excite the pyrogenic membrane, and bring about cicatrization.

## Correspondence.

*London, Nov. 8th, 1859.*

A Morning at the London Hospital.—A drive across London, even at an early hour of the morning, is replete with interest to the traveller. There are so many land-marks of note, of which he has heard or read, and which he has wished so long to see, that his eyes feast to the full and his recollection is revivified most delightfully, as he gazes upon the mighty panorama so suggestive of the events of history, romance and intense life-action.

During such a drive, a few weeks since, with the ultimate purpose of visiting the London Hospital, I had the singular good fortune to be under the hospitable charge of Dr. W. J. Little, one of the physicians to that Institution. Having been welcomed to an early breakfast with Dr. L., I was conveyed in his carriage, with himself and son, through the long wilderness of streets which intervenes between Brook street, Grosvenor Square, and the centre of the Borough of the Tower Hamlets, the site of the Hospital. Dr. Little, whose manner at first strikes one as remarkably staid, dignified and sedate, surprised me by the warmth of his subsequent manifestations, the depth and breadth of his information upon all general topics of interest and importance; his accurate historical knowledge and perfect acquaintance with everything worth knowing, not only in the metropolis, but in various quarters of the world which were spoken of, and his fluent and entertaining style of conversation. No less does it give me great pleasure to testify to the genuineness of his home-courtesies toward me than to the brilliant qualities to which allusion has been made. Accustomed, moreover, as I had been, to think of Dr. L. as mainly devoted to the study and practice of orthopædic surgery, I was entirely unprepared for the revelation which dawned upon me, both on our way to the London Hospital, and within its walls. I found my kind host fully as much at home upon *all* medical and surgical topics, as he was upon the historical, anecdotical, and every-day, practical characteristics of the remarkable places past which we drove. If I was delighted with the man, I was profoundly impressed by the physician. There seemed to be nothing in the current medical literature of the day which had escaped his eye; and I have to acknowledge myself exceedingly indebted to him for information upon several topics of great interest. Amongst other things, he called my attention to certain recorded cases of reparative surgery, published, with illustrations of singular merit in the *Beiträge Zur Praktischen Chirurgie*, at Kiel; and also to a Journal of Medicine and Surgery issued at Constantinople, in the French language.

At the London Hospital, I made a most interesting visit, and would here express my extreme gratification at all I saw in that most excellent Institution. Some more particular account of the building and its purposes may hereafter be presented, since I am in possession of an "Anniversary Report" which embraces very many items of interest to the profession everywhere, and which, together with two or three other papers of the same nature, or otherwise relating to the hospital, were presented to me, with copies of the journals above mentioned, by Dr. Little.

A class of students followed Dr. Little around his wards; and I can

truly say that I never was more pleased with a *clinique* in my life. It was true clinical instruction, and admirably communicated, and the replies of the young men to Dr. L.'s searching questions, were well, clearly and modestly made. When he spoke, their attention was undividedly given; and they seemed eager to secure every word. The relation between these students and their accomplished teacher is, I am sure, one of affectionate regard no less than one characterized by the hearty wish to secure sound instruction. Dr. L. is in the habit of consigning certain patients in his wards to the care, or rather to the investigation of the students—each one taking a case to examine—and to such he addresses his questions at his visits for clinical instruction. I shall long remember the frequent pauses, for conference, at due distance from the patients whose cases were discussed, and the admirable manner in which the important points were presented for consideration, in this familiar passing conversation. The student *must* think, and is pretty sure to remember, when he investigates disease under these advantageous circumstances.

The management at the London Hospital seems in every way excellent; and while passing along the wards, I could not but be struck with the kind attention manifested toward the patients by the attendants of every grade. Cleanliness is scrupulously observed, and ventilation unusually well secured and maintained. It was easy to notice the contented look of the inmates—of all such as were not too much suffering thus to express their feelings—and the satisfaction and pleasure they manifested at the approach of their kind physician.

I could not help remarking to Dr. Little, *apropos* of certain cases of *hemiplegia* in his wards, that I had observed more instances of this form of paralysis, during my comparatively short stay in London, than in several years in my own country. He seemed struck with the remark, and found some difficulty in explaining such a fact. It may doubtless be owing to lack of observation and opportunity on my own part; but it is no less true of many of the hospitals on the Continent of Europe, than of those I have had the chance of visiting in the United States. Of private cases I do not so much speak, since a balancing of the proportion in such, would, for obvious reasons, be more difficult. I saw no *paraplegic* cases in London, on my late visit.

Dr. Little said that something explanatory of the above fact, in his own wards, might possibly be ascribed to his having given special attention to lameness and deformities of the limbs. This I think not unlikely, but I remarked the fact of frequent hemiplegia elsewhere. Instances were to be observed at St. Mary's Hospital, Paddington, for instance. The matter may be wholly one of coincidence or accident, and of no importance practically. Dr. Little, in speaking of venereal excesses as a cause of hemiplegia, remarked, with a mischievous twinkle in his eye, that he supposed my countrymen could not claim any special exemption from such influences—that probably their passions were fully as liable to ebullition as those of Englishmen, so that an explanation of the fact—if it be a fact—must be sought elsewhere. Allusion was also made to the amount of imbibition of malt-liquors and spirits, as affecting certain classes, in the above species of disease.

Having said good-morning to my kind *chaperon* at his own door, after again crossing that wondrous and bewildering city-tract, so new in its aspects, even after the two or three hours which had elapsed since our earlier drive—and having been anew entertained and in-

structed by my highly respected conductor, I felt that I had had a pleasant and profitable morning at The London Hospital.

VIATOR.

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THE BOSTON MEDICAL AND SURGICAL JOURNAL.

**BOSTON, DECEMBER 22, 1859.**

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"SNORING AND ITS CURE."—Such is the caption of an article forming only a few pages of an interesting pamphlet whose main subject is "Stammering: The Cause and Cure:" by the Rev. W. W. Cazalet, A.M., Cantab. London: Bosworth & Harrison, 215 Regent Street, 1858. Proposing, as we do, to recur to the principal topic, we have a few words, at present, to say upon the lesser.

The reverend writer has the merits of clearness and terseness of style, and conveys his ideas in a very pleasant and effective manner. We happened to pick up his little work in the study of William Harvey, Esq., the skilful and justly celebrated aurist of London; and, having long felt an interest in regard to both of the topics discussed in it, were glad to secure a copy at the publishers' rooms. We have perused Chapter VI., whose title we have placed at the head of our article, with great pleasure and advantage; and we take this occasion to express our full belief that the author has, by his investigations and proposed curative method, conferred a genuine boon upon the human race in general, and upon snorers themselves in particular.

Rev. Mr. Cazalet's theory of the causation of snoring is ingenious, and, from the success of his remedial measures in our own hands, would seem to be correct. He writes, "Snoring is caused in this manner—The individual, as he falls off into settled repose, leaving his mouth open, inhales spasmodically through the nostrils: this produces a compression of the muscles of the soft palate and the back of the mouth; the air rushing along the passage of the nostrils through the contracted space, is vibrated into sound, which escapes at the mouth and partially through the nostrils, each act of inhalation having the effect of producing the muscular contraction; this power of contraction, which exists only when the mouth is kept open, is entirely involuntary, and hence the individual snorer is utterly unconscious of the fearful and unearthly sounds he is making."

The above being the explanation of the act of snoring, the obvious remedy is to give to the individual who thus makes night hideous for those near him, the *habit* of sleeping with the mouth closed. Difficulties, of course, environ this object. Mr. Cazalet mentions the habit of keeping the mouth closed "during the ordinary avocations of life," as conducing to a command over the action of the mouth. The *position* of the sleeper's head is also of no little importance. It should be as far as possible removed from that which would form an obtuse angle of the head with the neck. The author remarks, "the power of snoring, if I may so term it," diminishes "as the chin is brought gradually nearer to the chest."

If the mouth cannot be kept closed during sleep, or if the habit of

closing it be acquired and maintained with difficulty, Mr. Cazalet recommends the use of what he terms the "Night Respirator"—a very simple arrangement, and one by which the purpose in view is effectually secured. It is merely a bit of muslin of oval shape attached to a light steel frame and fastened by elastic bands behind the neck. If the mouth remain open, breathing is easily performed through the gauzy medium; but the effect is rather to induce a closure of the mouth, and respiration is performed through its legitimate channel, the nostrils. There is no inconvenience, nor discomfort; but the whole seems to us a triumph over a most annoying infirmity, which deserves the attention of all who are afflicted by it themselves, or who inflict it upon others.

We lately availed ourselves of the opportunity of purchasing a few of these ingenious "Night Respirators," and having the chance of trying them, can testify to the perfect success attained, thus far. Whether equally good results will follow in every instance, remains to be proved—we cannot see why they should not.

The little instrument—or rather appliance—is very cheap—being, at the shop where they were on sale—Mr. Bucklee's, chemist, 86 Bond street, corner of Oxford street, London—two shillings and sixpence, or about sixty-two and a half cents of our money. The cost could be but little increased by importation.

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Death of a Medical Student.—At a meeting of the class in the Medical Department of Harvard University, held on the morning of Dec. 7th, to take into consideration the death of one of their members, Francis H. Brown and John Homans, Jr., of Boston, and W. R. Bullard, of Indianapolis, Ind., were appointed a committee, who at a subsequent meeting presented the following series of resolutions.

Whereas, by the dispensation of an All-wise Providence, we are called to mourn the death of our classmate and friend, Edward T. Damon, of Wayland:

*Resolved*, That the medical class have received with deep sorrow and regret, the intelligence of the decease of one, who, in the relation of scholar, classmate and friend, had won our love and respect.

*Resolved*, That, in the daily walks of life, we shall long mourn the silence of that voice and the loss of ready sympathy of that friendship which existed between our friend and many of us; that, in the high order of talent he displayed, in the energy and zeal with which he was pursuing his studies, in his delicate conception and keen sense of all that was beautiful in the works of Nature, and with every attribute of character to make him successful, there is lost one who promised to become a most honored and distinguished member of our profession; that in his excellent principles, his noble aim, his exemplary life, his elevated and consistent Christian character, we have lost at once a bright example and guide.

*Resolved*, That a copy of these resolutions, signed by the officers of this meeting, be transmitted to the family of our departed friend, as a mark of our sympathy with them in their bereavement.

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Health of the City.—The deaths for the past week largely outnumber those for the corresponding week in 1858, viz., 85 to 52. The deaths from consumption are nearly doubled, being for this week, last year, 6—for the week just elapsed, 11. Pneumonia and scarlet fever,

also, have nearly doubled their numbers: in 1858, pneumonia, for the week noticed, 4; in 1859, same period, 7. Scarlet fever, 10 to 6. The mortuary returns for the last week, from the latter two diseases, surpass, likewise, those of the preceding week—standing thus: last week, pneumonia 7, preceding week 4. Scarlet fever last week, 10; preceding week, 2. There is one case of suicide recorded the past week, and, by a somewhat remarkable coincidence, one in the corresponding week of 1858.

There was a slight increase in the mortality by smallpox last week over that in the week antecedent; viz., 11 to 7. Many persons seem to be alarmed at this figure, and are bestirring themselves about re-vaccination. All very well, say we, albeit we have lately heard that an eminent authority pronounced re-vaccination useless and unnecessary—a verdict we cannot understand. The comparatively large number of deaths from smallpox, need not, we think, too much alarm our population. There seems to be a tendency to epidemic prevalence of this disease, at present, in Europe as well as here. Every preventive and precautionary measure should be taken.

The ages of those dead from smallpox during the past week are 33, 31, 23, 22, 19, 4, 5 years, and one of 15 days; these were males. There were 3 females—1 of 9 years, 1 of 10 months, and 1 of 6 months.

There is one feature in the aspect of the mortuary returns for the past week which we think calls for comment. We refer to the extraordinary terms in which "undertakers" report upon the causes of death. Thus, one case—the subject being a male 4 days old—is returned by the "undertaker" with the statement "that the head was injured by instruments used in effecting delivery." Here is a charge demanding investigation, and laying the maker thereof open to action. Is he ready to meet it? He *should*, were we the accoucheur. Or was the attendant a "Female Physician," so termed? If the child was killed by the application of obstetric instruments, by whomsoever applied, it ought to be known. Otherwise, the "undertaker's" statement is a loose, unwarrantable and injurious charge upon the practitioner in attendance. If he took the word of mere bystanders or nurses for it, he had no right to do so.

Again, we feel bound to notice a return—also from an "undertaker"—(what do "undertakers" know about the causes of disease and death?) testifying to the death of a male of 13 years from "Cramp in the Stomach." Who told him that this was so, and what is his return worth? The cause of Mortuary Statistics and Returns must suffer wofully until duly-authenticated statements can be furnished by reliable medical authorities. When will the present absurd system cease?

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THE MAINE MEDICAL SCHOOL.—The following Resolution, by the Legislature of Maine, is inserted in the Journal by request of several correspondents in that State.

*State of Maine.*—Resolve in favor of the Maine Medical School.

*Resolved*, That the land agent be directed to convey to the Maine Medical School, one half township of land of average quality to be selected by him, and to be applied by the said School to the promotion of the sciences of anatomy and surgery: *Provided, however*, that the Legislature may make any necessary regulation for the admission and graduation of students; *Provided, however*, said institution will receive and graduate all students who pass the required examina-

tions, without reference to where such student may have studied previous to asking admission to said Institution, or what mode of practice such student intends to pursue after receiving his diploma.

In the House of Representatives, April 2, 1859. Read and passed.

J. G. BLAINE, *Speaker pro tem.*

In Senate, April 2, 1859. Read and passed.

C. W. GODDARD, *President.*

April 4, 1859. Approved, LOT M. MORRILL.

*Secretary's Office, Augusta, June* 6, 1859.

I hereby certify that the foregoing is a true copy of the original as deposited in this office. LEWIS D. MOORE,

*Deputy Secretary of State.*

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NEW METHOD OF MAKING BREAD.—We took occasion, in a late number, to allude to the inferiority, as a general rule, of bread in this country. In this connection, the following process for bread making, communicated to the British Scientific Association, at its late meeting, may be of interest.

"Dr. ODLIN described a new mode of bread making, which excited the admiration of this section, and patented by Dr. Danglish. By this process, the carbonic acid is produced independently of and superadded to the flour, which, consequently, undergoes no modification whatever. The carbonic acid gas is stored in an ordinary gas holder, and is pumped therefrom into a cylindrical vessel of water, whereby the water becomes charged with gas. This water—soda-water, as it is commonly called—is mixed under pressure with the flour, and the resulting dough becomes vesicular on removing the pressure; it is then divided into loaves and baked. This process is so rapidly gone through, that in an hour and a half from the first wetting of the flour, a sack of flour is made into two-pound loaves. The advantages of this new mode are:—its cleanliness; from the beginning to the end of the operation neither the flour nor the water is touched by the human feet; it conduces to the health of the workpeople; it is a very rapid process; it is certain and uniform, and it prevents any deterioration of flour, so that by this process you can use flour which would require alum in the usual way.

"Mr. TREVELYAN said this process was more fitted for large establishments than for domestic use, and recommended a plan which he had used for many years, namely, by using muriatic acid and soda. A drachm of soda by weight and a pound of flour, and a drachm of muriatic acid by measure and a pound of flour, were the quantities he employed.

"Dr. DAUBENY said it was necessary to observe this caution in regard to the process mentioned by Mr. Trevelyan, that it was possible the muriatic acid might contain arsenic.

"A remark made by Mr. Trevelyan—that it was the opinion of some that arsenic, when taken in small quantities, was not deleterious to the system—brought forth a warning from Dr. Danberry and the President not to put any faith in the statement in Dr. Johnston's Chemistry of Common Life, that arsenic is taken by the girls of the Tyrol to improve their complexion, and that when taken constantly the system becomes used to it, that being the reverse of the fact.

"Mr. LIVERING observed that he had heard that this use of arsenic had been told to Dr. Johnston by a practical joker, who did not like to confess his imposition after it had been make public."

Achillea Millefolium in Uterine Congestion.—Dr. James Whitehead, in the Third Report of the Manchester Clinical Hospital, speaks highly of the efficacy of the common yarrow in uterine menorrhagia and leucorrhœa, the consequence of a "vascular or spongeoid hypertrophy of the uterus." He reports two cases in which the symptoms were urgent, and which were entirely cured, the patient using no other remedy. In one it was given in tincture, in doses of a dessert-spoonful three or four times a day; in the other, the patient took the decoction. He says, "the grounds upon which this remedy is recommended as an anti-hæmorrhagic, are not limited to the experience above cited. I have used it pretty freely in private practice about three years, and the results now stated go entirely to confirm those of previous trials."

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A Military Centennarian.—It would be necessary to go back to the Biblical times to find the trace of a longevity so extraordinary as that of Capt. Alexander-Victorian-Narcissus Viroux, of Belgium, who has just been put on the pension list by a royal command of the 16th September, 1859. What makes it more wonderful is that Mr. Viroux, born at Chimay, Nov. 9, 1709, and who consequently attained the age of one hundred and fifty years the ninth of last month, took the strange fancy of entering the service the 16th of October, 1830. But the independence of his country called him, and in spite of his one hundred and twenty-one years, he did not hesitate to fly to her defence. The military state pleased him, as he felt young and vigorous; he remained in its service, and attained the rank of captain. It is only in the last few days that he felt the desire of retiring to the place wherein he first saw the light of day.

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Chicago College of Pharmacy.—The introductory exercises of this Institution were inaugurated in Bryant & Stratton's Commercial College, with a general introductory lecture, by Prof. J. H. Rauch, M.D., which was listened to with interest by an audience of ladies, physicians, and students. The subject of the address was the History of Pharmacy, and it displayed much research and labor in its composition.—*Chicago Med. Examiner.*

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Rush Medical College.—The regular term of lectures in this Institution commenced on the first Tuesday in November. The general introductory lecture was delivered by Prof. J. A. Allen, formerly of Michigan, and was listened to with pleasure by the audience.—*Ib.*

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Dr. Silas Johnson, of Selma, Alabama, has received the appointment to the Professorship of the Surgical Department of the Oglethorpe Medical College, located at Savannah, Geo. We understand he has accepted.—*Philad. Medical and Surgical Reporter.*

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Physical Education in the Public Schools.—The Committee of the Board of Controllers of Public Schools of Philadelphia, on the subject of physical education in the grammar schools, have reported in favor of erecting suitable gymnastic apparatus in connection with the schoolhouses. An appropriation for the purpose will be asked.—*Ibid.*

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Dr. J. P. Barrett died a few weeks ago, in Abbeville, S. C., after a severe and lingering illness, caused by cancer of the stomach. He was an ex-president of the South Carolina State Medical Association, a large contributor to periodical literature, and a man of considerable talent and acquirements.—*Nashville Journal of Medicine and Surgery.*

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*Deaths in Boston* for the week ending Saturday noon, December 17th, 85. Males, 49—Females, 36.—Accidents, 4—apoplexy, 4—disease of the bowels, 1—bronchitis, 1—congestion of the brain, 1—cancer (breast), 1—consumption, 11—convulsions, 3—croup, 4—cyanosis, 1—dysentery, 2—dropsy, 2—dropsy in the head, 2—debility, 1—puerperal disease, 1—erysipelas, 1—scarlet fever, 10—disease of the heart, 4—intemperance, 2—inflammation of the lungs, 7—marasmus, 1—peritonitis, 1—purpura, 1—smallpox, 11—suicide, 1—teething, 1—unknown, 5—whooping cough, 1.

Under 5 years, 38—between 5 and 20 years, 8—between 20 and 40 years, 19—between 40 and 60 years, 14—above 60 years, 6. Born in the United States, 55—Ireland, 19—other places, 11.